

**REMARKS**

The Examiner's Action of October 1, 2003 has been received and its contents carefully considered. Reconsideration is respectfully requested in view of the Amendment and the following comments.

Claims 1-11 are currently pending in the instant application..

**Rejection under 35 USC 102(b)**

Claims 1 and 3 have been rejected under Section 103(a) as being anticipated by WO 96/24958 (Mallant et al.). Reconsideration is respectfully requested.

For prior art to anticipate under § 102, every element of the claimed invention must be identically disclosed, either expressly or under principles of inherency, in a single reference. Corning Glass Works v. Sumitomo Electric, 9 U.S.P.Q.2d 1962, 1965 (Fed. Cir. 1989). The exclusion of a claimed element, no matter how insubstantial or obvious, from a prior art reference is enough to negate anticipation. Connell v. Sears, Roebuck & Co., 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983) ("Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim. (Citation omitted) A prior art disclosure that 'almost' meets that standard may render the claim invalid under § 103; it does not 'anticipate'").) ...if the claim does not literally read, there is no anticipation. Lewmar Marine, Inc. v. Barient Inc., 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987).

Independent claim 1, from which claims 2-11 depend, pertains to a polymer electrolyte fuel cell comprising: an electrode including a catalyst layer and a diffusion layer, said catalyst layer being sectioned into a plurality of portions including an upstream portion and a downstream portion along a reactant gas flow direction, wherein a structure of said catalyst layer differs between at said upstream portion and at said downstream portion, said upstream portion of said catalyst layer having a structure for preventing a drying-up of said cell, said downstream portion of said catalyst layer having a structure for preventing a flooding of said cell.

Mallant et al. do not disclose a fuel cell catalyst layer where said upstream portion of said catalyst layer having a structure for preventing a drying-up of said cell, said downstream portion of said catalyst layer having a structure for preventing a flooding of said cell. In Mallant et al., it is not the catalyst layer proper, but the non-catalyst portions that allow water management. In addition, Mallant et al. do not disclose the prevention of a drying up of a cell, or the prevention of flooding of the cell. Such a disclosure is simply missing from Mallant et al.

In view of the above, it is submitted that Mallant et al. are inapplicable to independent claim 1. In addition, it is submitted that Mallant et al. are inapplicable to dependent claim 3 by virtue of depending from independent claim 1, and further for the particular additional features that they recite.

Accordingly, the Examiner is requested to reconsider and withdraw his rejection of the claims under Section 102(b).

**Rejection under 35 USC 103(a)**

Claims 1-11 have been rejected under Section 103(a) as being anticipated by Wilkinson et al. Reconsideration is respectfully requested.

Examiner has not made a *prima facie* case for his proposition that it would have been obvious to modify Wilkinson et al. to arrive at the instant invention as claimed in claim 1.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

The Examiner has not made a prima facie case for the proposition that it would be obvious to modify Wilkinson et al.'s fuel cell's electrode substrates to have upstream portion having a structure for preventing drying up of a cell and a downstream portion of the catalyst layer having a structure for preventing a flooding of the cell. The Action suggests that "the upstream structure of the catalyst layer would inherently function to prevent drying of the cell, and the downstream structure of the catalyst layer would inherently function to prevent flooding of the cell." However, there is nothing in Wilkinson et al. that suggests the above. There is nothing in Wilkinson et al. that suggests the above. Wilkinson et al. merely disclose varying the fluid transport properties of at least one of the electrode substrates. Nothing in Wilkinson et al. suggests the prevention of a drying up of a cell, or the prevention of flooding of the cell. The above features are those particular to the instant invention. It is noted that the Examiner appears to be using impermissible hindsight in this regard.

In view of the above, it is submitted that independent claim 1 is patentable over Wilkinson et al. Dependent claims 2-11 are likewise patentable over Wilkinson et al. by virtue of being dependent from claim 1, and further for the particular additional features that they recite.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw his rejection of the claims under Section 103(a).

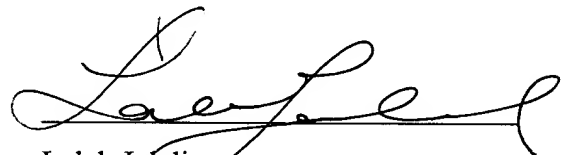
**CONCLUSION**

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration, withdrawal of all grounds of rejection and issuance of a Notice of Allowance are solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600. The Examiner is invited to contact the undersigned at (202) 220-4296 to discuss any matter regarding this application.

Respectfully submitted,  
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